

WHAT IS CLAIMED IS:

1. A camera lens system for image pickup devices,
comprising:

5 a first group lens having a convex, aspheric surface
facing an object;

a second group lens on which a light beam is incident
from the first group lens and which is formed in an aspheric
shape;

10 an iris disposed at a side of the first group lens close
to the object;

a filter disposed at a side of the second group lens
close to an image of the object; and

an image sensor for converting the image formed through
15 the first and second group lenses into an electrical signal,

wherein the camera lens system satisfies the following
conditions,

$$(1) \ 4.7 \leq f_1 \leq 4.9$$

$$(2) \ 23 \leq f_2 \leq 24$$

20 $(3) \ 3.8 \leq f \leq 4.0$

where f_1 is a focal length (mm) of the first group lens, f_2 is
a focal length (mm) of the second group lens, and f is an
overall focal length (mm) of the camera lens system.

25 2. The camera lens system for image pickup devices

according to claim 1, wherein the camera lens system satisfies the following condition,

$$(4) \quad 4.8 \leq L \leq 4.9$$

where L is an overall length (mm) of the camera lens system.

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3. The camera lens system for image pickup devices according to claim 1 or 2, wherein the first and second group lenses are designed so that radiuses of curvatures thereof satisfy the following conditions,

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$$(5) \quad 1.33 \leq r1 \leq 1.35$$

$$(6) \quad 1.9 \leq r2 \leq 2.1$$

$$(7) \quad 2.64 \leq r3 \leq 2.66$$

$$(8) \quad 2.87 \leq r4 \leq 2.89$$

where r1 is a radius of curvature (mm) of a surface of the first group lens facing the object, r2 is a radius of curvature (mm) of a surface of the first group lens facing the image, r3 is a radius of curvature (mm) of a surface of the second group lens facing the object, and r4 is a radius of curvature (mm) of a surface of the second group lens facing the image.

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4. The camera lens system for image pickup devices according to claim 3, wherein the camera lens system satisfies the following conditions,

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$$(9) \quad 0.05 \leq S1 \leq 0.15$$

$$(10) \quad 0.94 \leq S2 \leq 0.96$$

$$(11) \quad 1.2 \leq S3 \leq 1.4$$

$$(12) \quad 1.0 \leq S4 \leq 1.2$$

$$(13) \quad 0.3 \leq S5 \leq 0.5$$

$$5 \quad (14) \quad 0.5 \leq S6 \leq 0.6$$

$$(15) \quad 0.4 \leq S7 \leq 0.5$$

where S1 is a distance (mm) between the iris and the surface of the first group lens facing the object, S2 is a central thickness (mm) of the first group lens, S3 is a distance (mm) between the first and second group lenses, S4 is a central thickness (mm) of the second group lens, S5 is a distance (mm) between the surface of the second group lens facing the image and the filter, S6 is a thickness (mm) of the filter, and S7 is a distance between the filter and the image sensor.

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5. The camera lens system for image pickup devices according to claim 4, wherein the camera lens system is designed so that, if K, A, B, C, D and E are aspheric coefficients, shapes of aspheric surfaces of the first and second group lenses, expressed by equation

$$Z = \frac{\frac{h^2}{r}}{1 + \sqrt{1 - (1+K) \times \frac{h^2}{r^2}}} + A \times h^4 + B \times h^6 + C \times h^8 + D \times h^{10} + E \times h^{12}, \text{ satisfy conditions}$$

indicted in the following Table,

No	K	A	B	C	D	E
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2	-3.46	0.17735E+00	0.39590E-02	-0.1610E+00	0.3114E+00	-0.1833E+00
3	1.5045E+00	1.3898E-01	-1.6119E-01	4.0606E-01	-2.241E-01	
4	-293.436995	0.15454E+00	-0.2778E+00	0.20857E+00	-0.78496E-01	0.11370E-01
5	-389.03712	0.72780E-01	-0.92636E-01	0.40519E-01	-0.87947E-02	0.69212E-03

where No. 2 is the surface of the first group lens facing the object, No. 3 is the surface thereof facing the image, No. 4 is the surface of the second group lens facing the object, and 5 is the surface thereof facing the image.